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Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR). SHIM, Woo-Sun [KR/KR]; Sungkyunkwan University, Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR). BAE, You-Han [KR/US]; University of Utah, 421 Wakara Way, Suite 315, Salt Lake City, UT 84108 (US). YOU, Je-Sun [KR/KR]; Sungkyunkwan University, Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR). KIM, Min-Sang [KR/KR]; Sungkyunkwan University, Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR). PHU, Huynh-Dai [VN/KR]; Sungkyunkwan University, Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR).

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(74) Agent: KIM, Seong-Ki; 14F, Kukdong Building 60-1, Chungmuro3-ka, Chung-ku, Seoul 100-705 (KR).

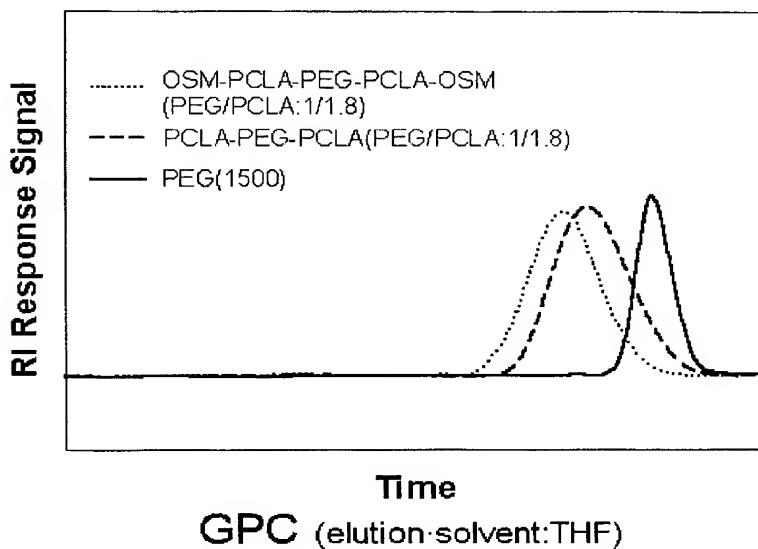
(71) Applicant (for all designated States except US): SUNGKYUNKWAN UNIVERSITY Foundation for Corporate Collaboration Provost [KR/KR]; 53 Myeongnyun-dong 3-ga, Jongno-gu, Seoul 100-745 (KR).

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(72) Inventors; and
(75) Inventors/Applicants (for US only): LEE, Doo-Sung [KR/KR]; Sungkyunkwan University, Cheoncheon-dong,

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(54) Title: PH AND TEMPERATURE SENSITIVE HYDROGELS



(57) Abstract: The present invention relates to a block copolymer formed by coupling the following components with each other, as well as a hydrogel composition comprising the block copolymer and a hydrogel formed from the composition: (a) a copolymer of a polyethylene glycol (PEG)-based compound with a biodegradable polymer; and (b) a sulfonamide-based oligomer. The inventive block copolymer shows the sol-gel transition behavior sensitive to changes in not only temperature but also pH. Thus, the inventive block copolymer overcomes the shortcomings of temperature-sensitive copolymers, form a more strong and stable hydrogel, and is stable in vivo. Accordingly, the inventive block copolymer can be used in various applications in the medical and drug delivery fields.

WO 2005/073281 A1



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